



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,769	06/08/2000	Robert M. Lukas	034300-105	9907

7590 10/19/2004
ROBERT E. KREBS
THELEN REID & PRIEST LLP
P.O. BOX 640640
SAN JOSE, CA 95164-0640

EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/590,769	Applicant(s) LUKAS, ROBERT M.	
	Examiner Joshua D Schneider	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

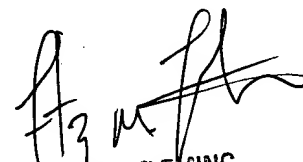
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 26-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 26-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/19/2004 have been fully considered but they are not persuasive.
2. Applicant argues that the references fail to show certain features of applicant's invention, emulation of an "always connected" type protocol that may be over a "connection establishment" type network. Applicant believes that the party "fooled" by the emulation is the host user and not the application software as claimed. Applicant points to several apparent teachings in Dowling that seem to point to the user being fooled and not the application. It is again set forth that all basic applications that request or send information over a network seems to be irrelevant to the way the network functions would be handled, as the basic network establishment program is always the same. As set forth by the teachings of Hirviniemi, all of these applications would in fact be "fooled" into believing that that are in fact in communication with the network (column 2, lines 12-23). This is more easily explained with reference to the OSI 7-layer model. Essentially, the application (layer 7) seeks to determine connection establishment (layer 5) before sending data. The connection establishment (layer 5) function is "fooled" in to thinking that the connection is active by the data link layer (layer 2) by sending Media Access Control (MAC) replies so that the TCP/IP (layers 3 and 4) application believes it is active and starts sending communications. As applicant has also stated is necessary, this allows the emulation of constant connection without having to change anything in the applications, but rather only in the MAC manager (column 2, lines 35-39). The emulation is therefore made to the application software without requiring any changes in the applications.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 8-13, 15, 28-30, 33-35, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,285 to Hirviniemi in further view of U.S. Patent 6,574,239 to Dowling et al. With regards to claim 1, Hirviniemi teaches the emulation of an “always connected” type protocol that may be over a “connection establishment” type network (column 1, lines 49-64). Hirviniemi teaches that upon initiation of a TCP/IP application request to start communication, the MAC manager provides a response so that the remote application believes it has received the correct reply. The application then starts sending data packets, and the MAC manager prepares the packets to be sent out through the modem link. Hirviniemi fails to explicitly teach that the emulation means is that of an “always connected” type. Dowling teaches means for emulation of an “always connected” type I/O device driver even though the communications are transmitted over a “connection establishment” type network (column 2, line 66 through column 3, line 63). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the modem of Dowling with the protocol of Hirviniemi in order to create a system that provides a transparent network connection in order to eliminate the costs of constant connection in a connection establishment network with toll charges.

5. With regards to claim 2, the Hirviniemi reference teaches that “always connected” type network services are emulated to the computer application (column 2, lines 8-34).

Art Unit: 2182

6. With regards to claim 3, Hirviniemi teaches that the MAC manager intercepts the application ARP requests and generates responses so that the TCP/IP application begins sending data (column 2, lines 8-34).
7. With regards to claim 4, Hirviniemi teaches the network services are ARP services (column 2, lines 8-18).
8. With regards to claim 6, Hirviniemi teaches that ARP messages transmitted by the TCP/IP application software are intercepted, a response is sent back to the application with a physical address, and that upon receiving this response, the application perceives an “always connected” network connection and begins to transfer data packets (column 2, lines 8-34).
9. With regards to claim 8, Hirviniemi discloses the use of LAN communications and TCP/IP software as the LAN I/O driver (column 1, lines 12-20).
10. With regards to claim 9, Hirviniemi discloses the use of LAN internet type communications and TCP/IP software as the LAN internet I/O driver (column 1, lines 12-20).
11. With regards to claim 10, Hirviniemi teaches the emulation of an “always connected” type protocol that may be over a “connection establishment” type network (column 1, lines 49-64). Hirviniemi teaches that upon initiation of a TCP/IP application request to start communication, the MAC manager provides a response so that the remote application believes it has received the correct reply. The application then starts sending data packets, and the MAC manager prepares the packets to be sent out through the modem link. Hirviniemi fails to explicitly teach that the emulation means is that of an “always connected” type. Dowling teaches means for emulation of an “always connected” type I/O device driver even though the communications are transmitted over a “connection establishment” type network (column 2, line

Art Unit: 2182

66 through column 3, line 63). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the modem of Dowling with the protocol of Hirviniemi in order to create a system that provides a transparent network connection in order to eliminate the costs of constant connection in a connection establishment network with toll charges. Hirviniemi fails to teach the use of a wireless modem. Dowling teaches that a wireless connection is conventional in a computer (column 6, lines 32-35). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the Dowling taught wireless modem with the emulation system of Hirviniemi, to create a wire free computer system that is competitive in the modern computer market.

12. With regards to claim 11, the Hirviniemi reference teaches that “always connected” type network services are emulated to the computer application (column 2, lines 8-34).

13. With regards to claim 12, Hirviniemi teaches that the MAC manager intercepts the application ARP requests and generates responses so that the TCP/IP application begins sending data (column 2, lines 8-34).

14. With regards to claim 13, Hirviniemi teaches the network services are ARP services (column 2, lines 8-18).

15. With regards to claim 28, 33, and 38, Hirviniemi teaches the emulation of an “always connected” type protocol that may be over a “connection establishment” type network (column 1, lines 49-64). Hirviniemi teaches that upon initiation of a TCP/IP application request to start communication by requesting a network address, the MAC manager provides a response to the request for a network address so that the remote application believes it has received the correct reply. Hirviniemi also teaches sending packets using the devices own address and an arbitrary

Art Unit: 2182

destination address (column 2, lines 22-24). The application then starts sending data packets, and the MAC manager prepares the packets to be sent out through the modem link. Hirviniemi fails to explicitly teach that the emulation means is that of an “always connected” type. Dowling teaches means for emulation of an “always connected” type I/O device driver even though the communications are transmitted over a “connection establishment” type network (column 2, line 66 through column 3, line 63). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the modem of Dowling with the protocol of Hirviniemi in order to create a system that provides a transparent network connection in order to eliminate the costs of constant connection in a connection establishment network with toll charges. Hirviniemi fails to teach the use of a wireless modem. Dowling teaches that a wireless connection is conventional in a computer (column 6, lines 32-35). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the Dowling taught wireless modem with the emulation system of Hirviniemi, to create a wire free computer system that is competitive in the modern computer market. With regards to claim 29 and 34, Hirviniemi teaches the network requests are ARP requests (column 2, lines 8-18).

16. With regards to claim 30 and 35, Hirviniemi teaches the network address being a MAC address that is a unique IP address (column 2, lines 11-22). Hirviniemi also teaches sending packets using the devices own address and an arbitrary destination address (column 2, lines 22-24).

17. With regards to claim 15, Hirviniemi teaches that ARP messages transmitted by the TCP/IP application software are intercepted, a response is sent back to the application with a

Art Unit: 2182

physical address, and that upon receiving this response, the application perceives an “always connected” network connection and begins to transfer data packets (column 2, lines 8-34).

18. Claims 5, 7, 14, 16, 31-32, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,285 to Hirviniemi and U.S. Patent 6,574,239 to Dowling et al. as applied to claims 1-4, 6, 8-13, 15, 28-30, 33-35, and 38 above, and further in view of U.S. Patent 6,028,848 to Bhatia et al.

19. With regards to claims 5 and 14, Hirviniemi fails to teach the use of DHCP type network services. Bhatia et al. teaches that DHCP network services in combination with the translating of addresses are well known (column 4, line 52, through column 6, line 49). It would have been obvious to one of ordinary skill in the art at the time of invention, to combine the network protocol emulation of Hirviniemi with the well-known DHCP services of Bhatia et al. in order to increase compatibility in a competitive computer market.

20. With regards to claims 7 and 16, Hirviniemi teaches the use of ARP and a MAC manager to emulate an “always connected” type connection to the application software, including sending messages back to the application, so that the application begins data transmission as if it were connected to an “always connected” type system (column 1, lines 51-59, and column 2, lines 8-34). Hirviniemi does not teach the same type of response system for DHCP services. The Bhatia et al. reference teaches that both DHCP and ARP services are known in address protocol emulation systems (column 4, line 52, through column 6, line 49). Bhatia et al. teaches that DHCP services are integrated with the routing and management processes and operate transparently to the computers, including message responses and maintaining an identifier stack. It would have been obvious to one of ordinary skill in the art at the time of invention to combine

Art Unit: 2182

the emulation system of Hirviniemi and the DHCP services of Bhatia et al. in order to create a system which interacts within a DHCP network environment, in order increase compatibility in a competitive computer market.

21. With regards to claim 31 and 36, Hirviniemi does not teach the same type of response system for DHCP services. Bhatia et al. teaches that DHCP network services in combination with the translating of addresses are well known (column 4, line 52, through column 6, line 49). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the emulation system of Hirviniemi and the DHCP services of Bhatia et al. in order to create a system which interacts within a DHCP network environment, in order increase compatibility in a competitive computer market.

22. With regards to claim 32 and 37, Hirviniemi teaches the network address being a MAC address that is a unique IP address (column 2, lines 11-22). Hirviniemi also teaches sending packets using the devices own address and an arbitrary destination address (column 2, lines 22-24).

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2182

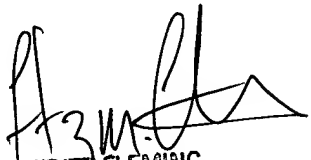
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100